

REMARKS

In the Office Action mailed December 15, 2006, the Examiner rejected claims 1-39 under 35 U.S.C. § 103. Claims 1, 6, 11, 19, 21, 23, 29, 32, 34, 37 and 39 have been amended.

Applicants respectfully respond to the Office Action.

I. Rejection of Claims 1, 2, 3, 14, 21, 22, 33 and 39 under 35 U.S.C. § 103

The Office Action rejected claims 1, 2, 3, 14, 21, 22, 33 and 39 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,944,449 to Gandhi et al. (hereinafter, “Gandhi”) in view of U.S. Patent Application Publication No. 2004/0165529 to Lee (hereinafter, “Lee”). With respect, this rejection is respectfully traversed.

The M.P.E.P. states that

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

M.P.E.P. § 2142.

Applicants respectfully submit that the claims at issue are patentably distinct from the cited references. The cited references do not teach or suggest all of the limitations in these claims.

Claim 1 has been amended to recite “the control mechanism used to reduce the load on the base station is selected based on . . . the type of application running on the base station, the persistence of the load on the base station and one or more quality of service (QoS) rules.”

Support for this amendment may be found in Applicants' specification, for example, page 14, paragraph [0048]. Gandhi, alone or in combination with Lee, does not teach or suggest this claim element.

The Office Action admits that "Gandhi fails to particularly disclose...means for implementing a plurality of control mechanisms to reduce the load on the base station, wherein the control mechanism used to reduce the load on the base station is selected based on the type and degree of the overload on the base station." See Office Action page 3. The addition of Lee does not overcome the deficiencies of Gandhi.

Instead Lee states:

An overload control method of a high speed data communication system can include judging whether an access network is overloaded, determining a class of the overload and restricting an originating call and a termination call according to the determined class during the overload. Since the access terminal, which can be the lowermost terminal of the system, controls the data call origination, resources at the side of the access network can be effectively managed. In addition, the overload control can be discriminately performed according to a degree of the overload so that the overload control method can effectively cope with the overload situation.

Lee, Abstract.

The Office Action points to the above cited passage of Lee to support the assertion that Lee teaches control mechanisms "according to the . . . type . . . [and] degree of the overload." Office Action, page 3. However, "determining a class of the overload . . . [and] a degree of the overload" does not teach or suggest "the control mechanism . . . is selected based on . . . the type of application running . . . the persistence of the load . . . and one or more quality of service (QoS) rules."

Lee further states:

[A]n overload control method of a data communication system that discriminately restricts an originating call and a termination call according to class of overload.

[A]n overload control method of a data communication system that restricts at least an originating call according to an overload status.

[A]n overload control method of a data communication system that restricts at least an originating call according to an overload status at an access terminal level.

To achieve at least the above objects in whole or in part, there is provided a method that includes judging whether an access network is overloaded and determining a class of the overload for restricting an originating call and a termination call according to the determined class.

Lee, page 2, paragraphs [0033]-[0036].

An overload control method that restricts calls “according to class of overload” and “according to an overload status” does not teach or suggest “the control mechanism . . . is selected based on . . . the type of application running . . . the persistence of the load . . . and one or more quality of service (QoS) rules” as claimed by Applicants.

Regarding the “class of overload” and the “overload status”, Lee states:

An overload control process or apparatus can classify, for example, 24 classes of overload according to the overload degree and restrict at least one of an originating call and a termination call processed on the basis of each class. The overload control process can periodically (e.g., 2 seconds) measure a processor occupancy rate and update an overload control level (L) of the access network.

Lee, page 3, paragraph [0052].

A “processor occupancy rate” does not teach or suggest “the type of application running . . . the persistence of the load . . . and one or more quality of service (QoS) rules.” Instead, Lee states “[t]he processor occupancy rate preferably signifies a rate assumed by the call processing operation from the overall operation of the call control processor.” *Id.* Simply stating “a rate assumed by the call processing operation” does not teach or suggest “the type of application running . . . the persistence of the load . . . and one or more quality of service (QoS) rules” as claimed by Applicants.

Lee also states:

A controller like the CCP 107 can be periodically (e.g., 2 seconds) measure a processor occupancy rate (e.g., CCP, BSP or the like) (step S201), and if the measured processor occupancy rate is continuously maintained for a prescribed time (e.g., 8 seconds) above a reference value (e.g., 70%), the CCP judges that an access network to which the CCP itself belongs is in an overload state (steps S202~S207). At this time, an overload control level of the access network is preferably set to 12 (e.g., Base_Level) (step S207).

Lee, page 3, paragraph [0054].

In the above cited passage, Lee states “if the measured processor occupancy rate is continuously maintained for a prescribed time . . . above a reference value . . . an access network . . . is in an overload state.” Merely determining if “an access network . . . is in an overload state” does not teach or suggest “the control mechanism used to reduce the load . . . is selected based on . . . the type of application . . . the persistence of the load . . . and one or more quality of service (QoS) rules.” Instead, determining “if the measured processor occupancy rate is continuously maintained for a prescribed time” is done so that “an overload control level of the access network is . . . set to 12.” Id.

In view of the foregoing, Applicants respectfully submit that claim 1 is patentably distinct from the cited references. Accordingly, Applicants respectfully request that the rejection of claim 1 be withdrawn.

The Office Action rejected Claims 2, 3 and 14 under 35 U.S.C. § 103 based on Gandhi in view of Lee. This rejection is respectfully traversed. It is well settled that if an independent claim is patentable over the cited art, then all claims depending from the independent claim are similarly patentable. M.P.E.P. § 2143.03 (“If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious”). In this case claims 2, 3 and 14 depend either directly or indirectly from claim 1. As noted above, claim 1 is patentable and nonobvious over the cited references. Accordingly, as the independent claim is patentable over these references, dependent claims 2, 3 and 14 (which depend from independent claim 1) are similarly allowable. Favorable consideration and withdrawal of this rejection is respectfully requested.

Claim 21 has been amended in a similar manner as claim 1. As such, Applicants submit that claim 21 is patentably distinct over Gandhi and Lee, alone or in combination. Accordingly, Applicants respectfully request that the rejection of claim 21 be withdrawn for at least the same reasons as those presented above in connection with claim 1.

Claims 22 and 33 depend directly from claim 21. Accordingly, Applicants respectfully request that the rejection of claims 22 and 33 be withdrawn for the same reasons as those presented in connection with claim 21 because Gandhi and Lee, alone or in combination, do not teach or suggest all of the elements of claim 21.

Claim 39 has been amended in a similar manner as claim 1. As such, Applicants submit that claim 39 is patentably distinct over Gandhi and Lee, alone or in combination. Accordingly, Applicants respectfully request that the rejection of claim 39 be withdrawn for at least the same reasons as those presented above in connection with claim 1.

II. Rejection of Claim 10 under 35 U.S.C. § 103

The Office Action rejected claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Gandhi in view of Lee, and further in view of U.S. Patent No. 6,442,398 to Padovani et al. (hereinafter, “Padovani”). With respect, this rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. See M.P.E.P. § 2142.

Claim 10 depends directly from claim 1. Accordingly, Applicants respectfully request that the rejection of claim 10 be withdrawn for the same reasons as those presented in connection with claim 1 because Gandhi, Lee and Padovani, alone or in combination, do not teach or suggest all of the elements of claim 1.

III. Rejection of Claims 4, 5, 24 and 25 under 35 U.S.C. § 103

The Office Action rejected claims 4, 5, 24 and 25 under 35 U.S.C. § 103(a) as being unpatentable over Gandhi in view of Lee, and further in view of U.S. Patent Application Publication No. 2003/0125068 to Lee et al. (hereinafter, “Lee ‘068”). With respect, this rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. See M.P.E.P. § 2142.

Claims 4 and 5 depend indirectly from claim 1. Accordingly, Applicants respectfully request that the rejection of claims 4 and 5 be withdrawn for the same reasons as those presented in connection with claim 1 because Gandhi, Lee and Lee ‘068, alone or in combination, do not teach or suggest all of the elements of claim 1.

Claims 24 and 25 depend indirectly from claim 21. Accordingly, Applicants respectfully request that the rejection of claims 24 and 25 be withdrawn for the same reasons as those presented in connection with claim 21 because Gandhi, Lee and Lee ‘068, alone or in combination, do not teach or suggest all of the elements of claim 21.

IV. Rejection of Claims 7-9 and 26-28 under 35 U.S.C. § 103

The Office Action rejected claims 7-9 and 26-28 under 35 U.S.C. § 103(a) as being unpatentable over Gandhi in view of Lee, and further in view of U.S. Patent Application Publication No. 2003/0003921 to Laakso et al. (hereinafter, “Laakso”). With respect, this rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. See M.P.E.P. § 2142.

Claims 7-9 depend either directly or indirectly from claim 1. Accordingly, Applicants respectfully request that the rejection of claims 7-9 be withdrawn for the same reasons as those presented in connection with claim 1 because Gandhi, Lee and Laakso, alone or in combination, do not teach or suggest all of the elements of claim 1.

Claims 26-28 depend either directly or indirectly from claim 21. Accordingly, Applicants respectfully request that the rejection of claims 26-28 be withdrawn for the same reasons as those presented in connection with claim 21 because Gandhi, Lee and Laakso, alone or in combination, do not teach or suggest all of the elements of claim 21.

V. Rejection of Claims 12 and 30 under 35 U.S.C. § 103

The Office Action rejected claims 12 and 30 under 35 U.S.C. § 103(a) as being unpatentable over Gandhi in view of Lee, and further in view of U.S. Patent No. 6,707,792 to Volftsun et al. (hereinafter, “Volftsun”). With respect, this rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. See M.P.E.P. § 2142.

Claim 12 depends directly from claim 1. Accordingly, Applicants respectfully request that the rejection of claim 12 be withdrawn for the same reasons as those presented in connection with claim 1 because Gandhi, Lee and Volftsun, alone or in combination, do not teach or suggest all of the elements of claim 1.

Claim 30 depends directly from claim 21. Accordingly, Applicants respectfully request that the rejection of claim 30 be withdrawn for the same reasons as those presented in connection

with claim 21 because Gandhi, Lee and Voltsun, alone or in combination, do not teach or suggest all of the elements of claim 21.

VI. Rejection of Claims 13 and 31 under 35 U.S.C. § 103

The Office Action rejected claims 13 and 31 under 35 U.S.C. § 103(a) as being unpatentable over Gandhi in view of Lee, and further in view of U.S. Patent No. 6,785,546 to Djuric (hereinafter, “Djuric”). With respect, this rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. See M.P.E.P. § 2142.

Claim 13 depends directly from claim 1. Accordingly, Applicants respectfully request that the rejection of claim 13 be withdrawn for the same reasons as those presented in connection with claim 1 because Gandhi, Lee and Djuric, alone or in combination, do not teach or suggest all of the elements of claim 1.

Claim 31 depends directly from claim 21. Accordingly, Applicants respectfully request that the rejection of claim 31 be withdrawn for the same reasons as those presented in connection with claim 21 because Gandhi, Lee and Djuric, alone or in combination, do not teach or suggest all of the elements of claim 21.

VII. Rejection of Claims 15 and 35 under 35 U.S.C. § 103

The Office Action rejected claims 15 and 35 under 35 U.S.C. § 103(a) as being unpatentable over Gandhi in view of Lee, and further in view of Laakso and Djuric. With respect, this rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. See M.P.E.P. § 2142.

Claim 15 depends directly from claim 1. Accordingly, Applicants respectfully request that the rejection of claim 15 be withdrawn for the same reasons as those presented in connection with claim 1 because Gandhi, Lee, Laakso and Djuric, alone or in combination, do not teach or suggest all of the elements of claim 1.

Claim 35 depends directly from claim 21. Accordingly, Applicants respectfully request that the rejection of claim 35 be withdrawn for the same reasons as those presented in connection with claim 21 because Gandhi, Lee, Laakso and Djuric, alone or in combination, do not teach or suggest all of the elements of claim 21.

VIII. Rejection of Claims 16 and 36 under 35 U.S.C. § 103

The Office Action rejected claims 16 and 36 under 35 U.S.C. § 103(a) as being unpatentable over Gandhi in view of Lee, Laakso and Djuric, and further in view of Padovani. With respect, this rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. See M.P.E.P. § 2142.

Claim 16 depends directly from claim 1. Accordingly, Applicants respectfully request that the rejection of claim 16 be withdrawn for the same reasons as those presented in connection with claim 1 because Gandhi, Lee, Laakso, Djuric and Padovani, alone or in combination, do not teach or suggest all of the elements of claim 1.

Claim 36 depends directly from claim 21. Accordingly, Applicants respectfully request that the rejection of claim 36 be withdrawn for the same reasons as those presented in connection with claim 21 because Gandhi, Lee, Laakso, Djuric and Padovani, alone or in combination, do not teach or suggest all of the elements of claim 21.

IX. Rejection of Claim 18 under 35 U.S.C. § 103

The Office Action rejected claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Gandhi in view of Lee, and further in view of U.S. Patent Application Publication No. 2002/0155852 to Bender et al. (hereinafter, “Bender”). With respect, this rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. See M.P.E.P. § 2142.

Claim 18 depends directly from claim 1. Accordingly, Applicants respectfully request that the rejection of claim 18 be withdrawn for the same reasons as those presented in connection with claim 1 because Gandhi, Lee and Bender, alone or in combination, do not teach or suggest all of the elements of claim 1.

X. Rejection of Claims 6 and 23 under 35 U.S.C. § 103

The Office Action rejected claims 6 and 23 under 35 U.S.C. § 103(a) as being unpatentable over Gandhi in view of Lee and U.S. Patent No. 6,134,216 to Gehi et al. (hereinafter, “Gehi”). With respect, this rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. See M.P.E.P. § 2142.

Claim 6 has been amended in a similar manner as claim 1. The Office Action does not assert that Gehi teaches “the control mechanism . . . is selected based on . . . the type of application running on the base station, the persistence of the load on the base station and one or more quality of service (QoS) rules.” The Office Action merely points to Gehi to support the assertion that “Gehi teaches a method of responding to overload in a real time system.” Office Action, page 26. As such, Applicants submit that claim 6 is patentably distinct from the cited references. Accordingly, Applicants respectfully request that the rejection of claim 6 be withdrawn for at least the same reasons as those presented above in connection with claim 1.

Claim 23 has been amended in a similar manner as claim 1. The Office Action does not assert that Gehi teaches “the control mechanism . . . is selected based on . . . the type of application running on the base station, the persistence of the load on the base station and one or more quality of service (QoS) rules.” The Office Action merely points to Gehi to support the assertion that “Gehi teaches a method of responding to overload in a real time system.” Office Action, page 28. As such, Applicants submit that claim 23 is patentably distinct from the cited references. Accordingly, Applicants respectfully request that the rejection of claim 23 be withdrawn for at least the same reasons as those presented above in connection with claim 1.

XI. Rejection of Claim 19 under 35 U.S.C. § 103

The Office Action rejected claim 19 under 35 U.S.C. § 103(a) as being unpatentable over Gandhi in view of Lee, Bender and U.S. Patent No. 6,456,850 to Kim et al. (hereinafter, “Kim”). With respect, this rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. See M.P.E.P. § 2142.

Claim 19 has been amended in a similar manner as claim 1. The Office Action does not assert that Bender and Kim teach “the control mechanism . . . is selected based on . . . the type of application running on the base station, the persistence of the load on the base station and one or

more quality of service (QoS) rules.” The Office Action merely points to Bender and Kim to support the assertion that Bender and Kim teach “means for determining idle users; means for bumping service to idle users; means for determining high data users; and means for bumping service to high data users.” Office Action, page 31. As such, Applicants submit that claim 19 is patentably distinct from the cited references. Accordingly, Applicants respectfully request that the rejection of claim 19 be withdrawn for at least the same reasons as those presented above in connection with claim 1.

XII. Rejection of Claim 20 under 35 U.S.C. § 103

The Office Action rejected claim 20 under 35 U.S.C. § 103(a) as being unpatentable over Gandhi in view of Lee, Bender and Kim, and further in view of U.S. Patent No. 5,949,757 to Katoh et al. (hereinafter, “Katoh”). With respect, this rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. See M.P.E.P. § 2142.

Claim 20 depends directly from claim 19. Accordingly, Applicants respectfully request that the rejection of claim 20 be withdrawn for the same reasons as those presented in connection with claim 19 because Gandhi, Lee, Bender, Kim and Katoh, alone or in combination, do not teach or suggest all of the elements of claim 19.

XIII. Rejection of Claims 11 and 29 under 35 U.S.C. § 103

The Office Action rejected claims 11 and 29 under 35 U.S.C. § 103(a) as being unpatentable over Gandhi in view of Volftsun and Lee. With respect, this rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. See M.P.E.P. § 2142.

Claim 11 has been amended in a similar manner as claim 1. The Office Action does not assert that Volftsun teaches “the control mechanism . . . is selected based on . . . the type of application running on the base station, the persistence of the load on the base station and one or more quality of service (QoS) rules.” The Office Action merely points to Volftsun to support the assertion that Volftsun teaches “a method and apparatus for reducing overload conditions of a node of a communication system that establishes pairs of overload thresholds values.” Office Action, page 34. As such, Applicants submit that claim 11 is patentably distinct from the cited

references. Accordingly, Applicants respectfully request that the rejection of claim 11 be withdrawn for at least the same reasons as those presented above in connection with claim 1.

Claim 29 is rejected over the same reasons stated about claim 11. As noted above, claim 11 is patentably distinct from the cited references. Accordingly, Applications respectfully submit that claim 29 is also patentably distinct from the cited references in view of the foregoing arguments for claim 11. Accordingly, Applicants respectfully request that the rejection of claim 29 be withdrawn.

XIV. Rejection of Claims 32 and 34 under 35 U.S.C. § 103

The Office Action rejected claims 32 and 34 under 35 U.S.C. § 103(a) as being unpatentable over Gandhi in view of U.S. Patent No. 5,697,054 to Andersson (hereinafter, “Andersson”), and further in view of Lee. With respect, this rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. See M.P.E.P. § 2142.

Claim 32 has been amended in a similar manner as claim 1. The Office Action does not assert that Andersson teaches “control mechanisms . . . based on . . . the type of application running on the base station, the persistence of the load on the base station and one or more quality of service (QoS) rules.” The Office Action merely points to Andersson to support the assertion that Andersson teaches “a base station comprising a second processor.” Office Action, page 35. As such, Applicants submit that claim 32 is patentably distinct from the cited references. Accordingly, Applicants respectfully request that the rejection of claim 32 be withdrawn for at least the same reasons as those presented above in connection with claim 1.

Claim 34 has been amended in a similar manner as claim 1. The Office Action does not assert that Andersson teaches “control mechanisms . . . based on . . . the type of application running on the base station, the persistence of the load on the base station and one or more quality of service (QoS) rules.” The Office Action merely points to Andersson to support the assertion that Andersson teaches “a base station comprising a plurality of processors.” Office Action, page 37. As such, Applicants submit that claim 34 is patentably distinct from the cited references. Accordingly, Applicants respectfully request that the rejection of claim 34 be withdrawn for at least the same reasons as those presented above in connection with claim 1.

XV. Rejection of Claim 37 under 35 U.S.C. § 103

The Office Action rejected claim 37 under 35 U.S.C. § 103(a) as being unpatentable over Gandhi in view of Andersson, Lee and Laakso. With respect, this rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. See M.P.E.P. § 2142.

Claim 37 has been amended in a similar manner as claim 1. The Office Action does not assert that Andersson teaches “control mechanisms . . . based on . . . the type of application running on the base station, the persistence of the load on the base station and one or more quality of service (QoS) rules.” The Office Action merely points to Andersson to support the assertion that Andersson teaches “a base station comprising a plurality of processors.” Office Action, page 40. In addition, the Office Action does not assert that Laakso teaches “control mechanisms . . . based on . . . the type of application running on the base station, the persistence of the load on the base station and one or more quality of service (QoS) rules.” The Office Action merely points to Laakso to support the assertion that Laakso teaches “a method for traffic load control in a telecommunication network comprising the steps of setting a first reference load value for the load of a respective cell.” Office Action, page 40. As such, Applicants submit that claim 37 is patentably distinct from the cited references. Accordingly, Applicants respectfully request that the rejection of claim 37 be withdrawn for at least the same reasons as those presented above in connection with claim 1.

XVI. Rejection of Claim 38 under 35 U.S.C. § 103

The Office Action rejected claim 38 under 35 U.S.C. § 103(a) as being unpatentable over Gandhi in view of Andersson, Laakso and Lee, and further in view of Padovani. With respect, this rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. See M.P.E.P. § 2142.

Claim 38 depends directly from claim 37. Accordingly, Applicants respectfully request that the rejection of claim 38 be withdrawn for the same reasons as those presented in connection with claim 37 because Gandhi, Andersson, Laakso, Lee and Padovani, alone or in combination, do not teach or suggest all of the elements of claim 37.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

Dated: May 14, 2007

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